What is Claimed is:

1. A control system for an internal combustion engine having a plurality of cylinders and switching means for switching between an all-cylinder operation in which all of said plurality of cylinders are operated and a partial-cylinder operation in which at least one of said plurality of cylinders is halted, said control system comprising:

operating parameter detecting means for detecting operating parameters of a vehicle driven by said engine, said operating parameters including at least one operating parameter of said engine;

condition determining means for determining a condition for performing the partial-cylinder operation, based on the operating parameters detected by said operating parameter detecting means;

modifying means for modifying a result of the determination by said condition determining means so that the partial-cylinder operation may be continued, when the detected operating parameters satisfy a predetermined continuation condition within a predetermined time period from the time a vehicle operating state where the condition for performing the partial-cylinder operation is satisfied, has changed to another vehicle operating state where the condition for performing the partial-cylinder operation is not satisfied; and

instructing means for instructing said switching means to perform the partial-cylinder operation or the all-cylinder operation according to the result of the determination modified by said modifying means.

2. A control system according to claim 1, wherein said operating parameter detecting means detects an operation amount indicative of a required output power of said engine, and said condition determining means determines that the condition for performing the partial-cylinder operation is satisfied when the detected operation amount is less than a determination threshold value.

3. A control system according to claim 2, wherein said operating

parameter detecting means detects a running speed of said vehicle, and the predetermined continuation condition is satisfied when the detected operation amount is less than a value which is obtained by adding a predetermined value to the determination threshold value, an amount of change in the detected operation amount is less than a predetermined amount of change in the operation amount, and an amount of change in the detected running speed of said vehicle is less than a predetermined amount of change in the running speed.

4. A control system according to claim 2, wherein said operating parameter detecting means detects a rotational speed of said engine, and the predetermined continuation condition is satisfied when the detected operation amount is less than a value which is obtained by adding a predetermined value to the determination threshold value, an amount of change in the detected operation amount is less than a predetermined amount of change in the operation amount, and an amount of change in the detected rotational speed of said engine is less than a predetermined amount of change in the rotational speed.

5. A control system according to claim 2, wherein said operating parameter detecting means detects a running speed of said vehicle and a gear position of a transmission of said vehicle, and the determination threshold value is set according to the detected running speed and gear position.

6. A control system for an internal combustion engine having a plurality of cylinders and switching means for switching between an all-cylinder operation in which all of said plurality of cylinders are operated and a partial-cylinder operation in which at least one of said plurality of cylinders is halted, said control system comprising:

operation amount detecting means for detecting an operation amount indicative of a required output power of said engine;

condition determining means for determining a condition for performing the partial-cylinder operation based on the operation amount detected by said operation amount detecting means; and

instructing means for instructing said switching means to perform the partial-cylinder operation or the all-cylinder operation according to a result of the determination,

wherein said condition determining means includes filtering means for performing a low-pass filtering of the operation amount, and determines the condition for performing the partial-cylinder operation based on the operation amount filtered by said filtering means, when the partial-cylinder operation is being performed.

7. A control system according to claim 6, wherein said condition determining means determines that the condition for performing the partial-cylinder operation is satisfied, when the detected operation amount is less than a determination threshold value.

8. A control system according to claim 7, further including vehicle speed detecting means for detecting a running speed of said vehicle and gear position detecting means for detecting a gear position of a transmission of said vehicle,

wherein the determination threshold value is set according to the detected running speed and gear position.

9. A control method for an internal combustion engine having a plurality of cylinders and a switching mechanism for switching between an all-cylinder operation in which all of said plurality of cylinders are operated and a partial-cylinder operation in which at least one of said plurality of cylinders is halted, said control method comprising the steps of:

a) detecting operating parameters of a vehicle driven by said engine, said operating parameters including at least one operating parameter of said engine;

b) determining a condition for performing the partial-cylinder operation, based on the detected operating parameters;

c) modifying a result of the determination in said step b) so that the partial-cylinder operation may be continued, when the detected operating parameters satisfy a predetermined continuation condition within a predetermined time period from the time a vehicle operating state where the condition for performing the partial-cylinder operation is satisfied, has changed to another vehicle operating state where the condition for performing the partial-cylinder operation is not satisfied; and

d) instructing said switching mechanism to perform the partial-cylinder operation or the all-cylinder operation according to the modified result of the determination.

10. A control method according to claim 9, wherein an operation amount indicative of a required output power of said engine is detected in said step a), and it is determined that the condition for performing the partial-cylinder operation is satisfied when the detected operation amount is less than a determination threshold value.

11. A control method according to claim 10, wherein a running speed of said vehicle is detected in said step a), and the predetermined continuation condition is satisfied when the detected operation amount is less than a value which is obtained by adding a predetermined value to the determination threshold value, an amount of change in the detected operation amount is less than a predetermined amount of change in the operation amount, and an amount of change in the detected running speed of said vehicle is less than a predetermined amount of change in the running speed.

12. A control method according to claim 10, wherein a rotational speed of said engine is detected in said step a), and the predetermined continuation condition is satisfied when the detected operation amount is

less than a value which is obtained by adding a predetermined value to the determination threshold value, an amount of change in the detected operation amount is less than a predetermined amount of change in the operation amount, and an amount of change in the detected rotational speed of said engine is less than a predetermined amount of change in the rotational speed.

13. A control method according to claim 10, wherein a running speed of said vehicle and a gear position of a transmission of said vehicle are detected in said step a), and the determination threshold value is set according to the detected running speed and gear position.

14. A control method for an internal combustion engine having a plurality of cylinders and a switching mechanism for switching between an all-cylinder operation in which all of said plurality of cylinders are operated and a partial-cylinder operation in which at least one of said plurality of cylinders is halted, said control method comprising the steps of:

a) detecting an operation amount indicative of a required output power of said engine;

b) determining a condition for performing the partial-cylinder operation based on the detected operation amount; and

c) instructing said switching mechanism to perform the partial-cylinder operation or the all-cylinder operation according to a result of the determination in step b),

wherein said step b) includes the step of performing a low-pass filtering of the operation amount, and the condition for performing the partial-cylinder operation is determined based on the filtered operation amount, when the partial-cylinder operation is being performed.

15. A control method according to claim 14, wherein it is determined that the condition for performing the partial-cylinder operation is satisfied, when the detected operation amount is less than a determination

threshold value.

16. A control method according to claim 15, further including the steps of detecting a running speed of said vehicle and detecting a gear position of a transmission of said vehicle,

wherein the determination threshold value is set according to the detected running speed and gear position.

17. A computer program for causing a computer to carry out a control method for an internal combustion engine having a plurality of cylinders and a switching mechanism for switching between an all-cylinder operation in which all of said plurality of cylinders are operated and a partial-cylinder operation in which at least one of said plurality of cylinders is halted, said control method comprising the steps of:

a) detecting operating parameters of a vehicle driven by said engine, said operating parameters including at least one operating parameter of said engine;

b) determining a condition for performing the partial-cylinder operation, based on the detected operating parameters;

c) modifying a result of the determination in said step b) so that the partial-cylinder operation may be continued, when the detected operating parameters satisfy a predetermined continuation condition within a predetermined time period from the time a vehicle operating state where the condition for performing the partial-cylinder operation is satisfied, has changed to another vehicle operating state where the condition for performing the partial-cylinder operation is not satisfied; and

d) instructing said switching mechanism to perform the partial-cylinder operation or the all-cylinder operation according to the modified result of the determination.

18. A computer program according to claim 17, wherein an operation amount indicative of a required output power of said engine is

detected in said step a), and it is determined that the condition for performing the partial-cylinder operation is satisfied when the detected operation amount is less than a determination threshold value.

19. A computer program according to claim 18, wherein a running speed of said vehicle is detected in said step a), and the predetermined continuation condition is satisfied when the detected operation amount is less than a value which is obtained by adding a predetermined value to the determination threshold value, an amount of change in the detected operation amount is less than a predetermined amount of change in the operation amount, and an amount of change in the detected running speed of said vehicle is less than a predetermined amount of change in the running speed.

20. A computer program according to claim 18, wherein a rotational speed of said engine is detected in said step a), and the predetermined continuation condition is satisfied when the detected operation amount is less than a value which is obtained by adding a predetermined value to the determination threshold value, an amount of change in the detected operation amount is less than a predetermined amount of change in the operation amount, and an amount of change in the detected rotational speed of said engine is less than a predetermined amount of change in the rotational speed.

21. A computer program according to claim 18, wherein a running speed of said vehicle and a gear position of a transmission of said vehicle are detected in said step a), and the determination threshold value is set according to the detected running speed and gear position.

22. A computer program for causing a computer to carry out a control method for an internal combustion engine having a plurality of cylinders and a switching mechanism for switching between an all-cylinder

operation in which all of said plurality of cylinders are operated and a partial-cylinder operation in which at least one of said plurality of cylinders is halted, said control method comprising the steps of:

a) detecting an operation amount indicative of a required output power of said engine; and

b) determining a condition for performing the partial-cylinder operation based on the detected operation amount; and

c) instructing said switching mechanism to perform the partial-cylinder operation or the all-cylinder operation according to a result of the determination in step b),

wherein said step b) includes the step of performing a low-pass filtering of the operation amount, and the condition for performing the partial-cylinder operation is determined based on the filtered operation amount, when the partial-cylinder operation is being performed.

23. A computer program according to claim 22, wherein it is determined that the condition for performing the partial-cylinder operation is satisfied, when the detected operation amount is less than a determination threshold value.

24. A computer program according to claim 23, wherein said control method further includes the steps of detecting a running speed of said vehicle and detecting a gear position of a transmission of said vehicle, and the determination threshold value is set according to the detected running speed and gear position.